

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A game apparatus for displaying an object in a game space, the apparatus comprising:

a-light source setting ~~section~~programmed logic circuitry for setting, in the game space, n light sources (where n is an integer equal to or more than 2) for irradiating the object with a light beam;

a brightness ~~calculating~~calculator~~section~~ for calculating, for each of predetermined units forming the object, a brightness vector having as components n illumination intensities respectively added by the n light sources;

at least one threshold value storage ~~section~~location having threshold values of the n illumination intensities stored therein, the threshold values being used for dividing a coordinate ~~region~~system for the brightness vector into at least three regions;

a-region determining programmed logic circuitry ~~section~~ for determining, for each of the predetermined units, a region including a tip of the brightness vector calculated by the brightness ~~calculator~~calculator ~~section~~ from among the regions obtained via division by the threshold values based on whether or not the illumination intensity of each of the n illumination intensities is greater than, less than or equal to the corresponding threshold value~~based on relationships in size between the n illumination intensities and their corresponding threshold values~~; and

a-display color determining programmed logic circuitry ~~section~~ for determining a display color for each of the predetermined units based on the region

determined for each of the predetermined units by the region determining programmed logic circuitry section, such that the object's display color distinctly varies.

2. (Currently Amended) The game apparatus according to claim 1, wherein:

the light source setting programmed logic circuitry section sets a first light source emitting a light beam of a first color, and a second light source emitting a light beam of a second color which is different from the first color;

~~the brightness calculating section calculates, for each of the predetermined units forming the object, a wherein said brightness vector is composed of the illumination intensities corresponding to values of color components of the first and second colors;~~
and

~~the region determining programmed logic circuitry section determines the region including the tip of the brightness vector by determining a relationship in size between the value of the color component of the first color and its corresponding first threshold value, and a relationship in size between the value of the color component of the second color and its corresponding second threshold value.~~

3. (Previously Presented) The game apparatus according to claim 2,
wherein:

the first color is either one of red, green, or blue; and

the second color differs from the first color, and is either one of red, green, or blue.

4. (Currently Amended) The game apparatus according to claim 2, wherein:

the coordinate region-system is divided into different regions by the first threshold value, and is further divided into different regions by the second threshold value; and

the display color determining programmed logic circuitry section determines display colors of different brightness in accordance with the regions obtained by division by the first threshold value, and determines display colors of different types in accordance with the regions obtained by division by the second threshold value.

5. (Currently Amended) The game apparatus according to claim 4, wherein

the display color determining programmed logic circuitry section-determines, in accordance with the regions obtained by division by the second threshold value, either a color used for representing an object influenced by a special effect generated in the game space or a color used for representing an object in the case where no special effects are generated.

6. (Currently Amended) The game apparatus according to claim 5, further

comprising a special effect determining programmed logic circuitry section-for

determining whether the special effect is generated in the game space, wherein the light source setting programmed logic circuitry section provides the second light source only when the special effect determining programmed logic circuitry section determines that the special effect has been generated.

7. (Currently Amended) The game apparatus according to claim 1, further comprising at least one display color storage section location having basic display colors stored therein, the basic display colors being used for determining the display color of each object, wherein the display color determining section programmed logic circuitry determines the display color based on the region determined by the region determining programmed logic circuitry section and the basic display colors stored in the at least one display color storage section location.

8. (Currently Amended) The game apparatus according to claim 7, wherein:
the region determining programmed logic circuitry section represents a determined region by a numerical value; and
the display color determining programmed logic circuitry section determines the display color by performing a predetermined calculation using the numerical value representing the region determined by the region determining programmed logic circuitry section and color data for the basic display colors.

9. (Previously Presented) The game apparatus according to claim 1, wherein the predetermined units are polygons forming the object.

10. (Currently Amended) A game apparatus for displaying an object in a game space, the apparatus comprising:

a-first light source setting programmed logic circuitry section for setting, in the game space, a first light source for irradiating the object with a light beam;

a-second light source setting programmed logic circuitry section for setting, in the game space, a second light source which is different from the first light source;

a brightness calculating calculator section for calculating, for each of predetermined units forming the object, a first illumination intensity added by the first light source and a second illumination intensity added by the second light source;

at least one threshold value storage section-location having threshold values of the first and second illumination intensities stored therein;

a-first detecting programmed logic circuitry section for detecting, for each of the predetermined units, whether the first illumination intensity is greater than, less than, or equal to the corresponding threshold value~~a relationship in size between the first illumination intensity and its corresponding threshold value~~;

a-second detecting programmed logic circuitry section for detecting, for each of the predetermined units, ~~a relationship in size between the second illumination~~

intensity and its corresponding threshold valuewhether the second illumination intensity is greater than, less than, or equal to the corresponding threshold value; and

a display color determining programmed logic circuitry section for determining a display color for each of the predetermined units based on detection results obtained for each of the predetermined units by the first and second detecting programmed logic circuitry sections, such that the object's display color distinctly varies.

11. (Previously Presented) The game apparatus according to claim 10, wherein the predetermined units are polygons forming the object.

12. (Currently Amended) A computer-readable recording medium having a game program recorded therein, the game program causing a game apparatus to implement a game in which an object is displayed in a game space, the game program causing the game apparatus to implement:

~~a light source setting step for setting, in the game space, n light sources (where n is an integer equal to or more than 2) for irradiating the object with a light beam;~~

~~a brightness calculating step for calculating, for each of predetermined units forming the object, a brightness vector having as components n illumination intensities respectively added by the n light sources;~~

a ~~region determining step~~ for determining, for each of the predetermined units, a region including a tip of the brightness vector calculated ~~at by~~ the brightness calculating step from among at least three regions into which a coordinate ~~region system~~ for the brightness vector is divided by threshold values of the n illumination intensities, based on whether or not the illumination intensity of each of the n illumination intensities ~~is greater than, less than or equal to the corresponding threshold value~~ based on relationships in size between the n illumination intensities and their corresponding threshold values; and

a ~~display color determining step~~ for determining a display color for each of the predetermined units based on the region determined for each of the predetermined units ~~at by~~ the ~~region~~ determining ~~a region~~ step, such that the object's display color distinctly varies.

13. (Currently Amended) The computer-readable recording medium according to claim 12, wherein:

the ~~light source~~ setting step sets a first light source emitting a light beam of a first color, and a second light source emitting a light beam of a second color which is different from the first color;

~~the brightness calculating step calculates, for each of the predetermined units forming the object, a~~ wherein the brightness vector is composed of the illumination

intensities corresponding to values of color components of the first and second colors;
and

~~the region-determining a region step~~ determines the region including the tip
of the brightness vector by determining a relationship in size between the value of the
color component of the first color and its corresponding first threshold value, and a
relationship in size between the value of the color component of the second color and its
corresponding second threshold value.

14. (Previously Presented) The computer-readable recording medium
according to claim 13, wherein:

the first color is either one of red, green, or blue; and
the second color differs from the first color, and is either one of red, green,
or blue.

15. (Currently Amended) The computer-readable recording medium
according to claim 13, wherein:

the coordinate ~~region system~~ is divided into different regions by the first
threshold value, and is further divided into different regions by the second threshold
value; and

~~the display color-determining a display color step~~ determines display colors
of different brightness in accordance with the regions obtained by division by the first

threshold value, and determines display colors of different types in accordance with the regions obtained by division by the second threshold value.

16. (Currently Amended) The computer-readable recording medium according to claim 15, wherein the ~~display color-determining a display color step~~ determines, in accordance with the regions obtained by division by the second threshold value, either a color used for representing an object influenced by a special effect generated in the game space or a color used for representing an object in the case where no special effects are generated.

17. (Currently Amended) The computer-readable recording medium according to claim 16, wherein:

the game program further causes the game apparatus to implement ~~a special effect determining step for determining whether the special effect is generated in the game space; and~~

~~the light source-setting step provides the second light source only when the determining whether the special effect is generated special effect determining step~~ determines that the special effect has been generated.

18. (Currently Amended) The computer-readable recording medium according to claim 12, wherein:

the game apparatus has basic display colors stored therein, the basic display colors being used for determining the display color of each object; and

the ~~display color~~ determining a display color step determines the display color based on the region determined at the ~~region~~ determining a region step and the basic display colors stored in the game apparatus.

19. (Currently Amended) The computer-readable recording medium according to claim 18, wherein:

the ~~region~~ determining a region step represents a determined region by a numerical value; and

the ~~display color~~ determining a display color step determines the display color by performing a predetermined calculation using the numerical value representing the region determined at the ~~region~~ determining a region step and color data for the basic display colors.

20. (Previously Presented) The computer-readable recording medium according to claim 12, wherein the predetermined units are polygons forming the object.

21. (Currently Amended) A computer-readable recording medium having a game program recorded therein, the game program causing a game apparatus to

implement a game in which an object is displayed in a game space, the game program causing the game apparatus to implement:

a ~~first light source setting step for~~ setting, in the game space, a first light source for irradiating the object with a light beam;

a ~~second light source setting step for~~ setting, in the game space, a second light source which is different from the first light source;

a ~~brightness calculating step for~~ calculating, for each of predetermined units forming the object, a first illumination intensity added by the first light source and a second illumination intensity added by the second light source;

a ~~first detecting step for~~ detecting, for each of the predetermined units, whether the first illumination intensity is greater than, less than, or equal to the corresponding threshold value a relationship in size between the first illumination intensity and its corresponding threshold value;

a ~~second detecting step for~~ detecting, for each of the predetermined units, whether the second illumination intensity is greater than, less than, or equal to the corresponding threshold value a relationship in size between the second illumination intensity and its corresponding threshold value; and

a ~~display color determining step for~~ determining a display color for each of the predetermined units based on detection results obtained for each of the predetermined units by the ~~first and second~~ detecting whether the first and second intensities are greater

than, less than, or equal to the corresponding threshold values~~steps~~, such that the object's display color distinctly varies.

22. (Previously Presented) The computer-readable recording medium according to claim 21, wherein the predetermined units are polygons forming the object.